

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, as amended (33 U.S.C. 1251 et. seq; the "Act"),

Navajo Tribal Utility Authority
Ganado Wastewater Treatment Lagoon
P.O. Box 170
Ft. Defiance, Arizona 86504

is authorized to discharge treated wastewater from the wastewater treatment facility located approximately one mile west of Hubbell Trading Post and 0.5 mile south Arizona Highway 264 in Ganado, Apache County, Arizona, from a discharge point (Discharge Outfall number 001) which is located at

Latitude: 35° 43' 12" N
Longitude: 109° 34' 22" W

to receiving waters named Pueblo Colorado Wash, a tributary to Cottonwood Wash, an eventual tributary to the Little Colorado River, in accordance with effluent limitations, monitoring requirements and in the attached 14 pages of EPA Region 9 "Standard Federal NPDES Permit Conditions," dated May 10, 1990.

This permit shall become effective on _____.

This permit and the authorization to discharge shall expire at midnight, _____.

Signed this _____ day of _____

For the Regional Administrator

Alexis Strauss, Director
Water Division
EPA, Region 9

SECTION A. EFFLUENT LIMITATION AND MONITORING REQUIREMENTS

Based upon the current average capacity of 0.40 MGD, the permittee is authorized to discharge from Outfall Serial Number 001 treated domestic wastewater.

1. The influent shall be sampled prior to it entering the lagoons. The effluent shall be sampled after final treatment prior to discharge to Pueblo Colorado Wash, a tributary to Cottonwood Wash, an eventual tributary to the Little Colorado River.
2. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Parameter	Units	Monthly Average	Weekly Average	Daily Maximum	Monitoring Frequency ¹	Sample Type
Flow ¹	MGD	--	--	--	Once/month	Instantaneous
BOD ₅ ²	mg/l	45	65	--	Once/month	Composite
	kg/day	68.0	98.0	--		
TSS ²	mg/l	90	135	--	Once/month	Composite
	kg/day	136.0	203.0	--		
Fecal Coliform Bacteria	#/100 ml	200 ³	--	400 ⁴	Once/month	Discrete
TRC ⁵	mg/l	--	--	1.0	Once/month	Discrete
NH ₃ ⁶	mg/l	--	--	--	Once/quarter	Discrete
TDS ⁷	mg/l	--	--	--	Once/quarter	Discrete
pH	std. units	between 6.5 to 9.0			Once/month	Discrete
Temp ⁸	deg F	--	--	--	Once/quarter	Discrete

NOTES:

1. Both the influent and effluent shall be monitored and reported. The effluent shall be sampled at the pipe coming out of Lagoon #2 (Outfall Number 001) prior to discharge into Pueblo Colorado Wash. All samples shall be discrete unless otherwise noted.
2. For both BOD₅ and TSS, the arithmetic means of values, by weight, for effluent samples collected in a period of 30 consecutive calendar days shall not exceed 35 percent of the arithmetic mean of values, by weight, for influent samples

collected at approximately the same times during the same period.

3. Geometric mean of samples collected during the calendar month.
4. Single sample maximum.
5. "TRC" = Total Residual Chlorine. Limit applies only if chlorination is implemented. If chlorination is used, the permittee shall at all times operate the plant to achieve the lowest possible residual chlorine while still complying with permit limits for fecal coliform.

TRC shall also be measured once/week at the outfall and reported on the Discharge Monitoring Reports, along with an estimate of the natural flow of the stream. (When the only flow in the receiving water is the effluent, the "natural flow" should be reported as zero.)

6. "NH₃" = un-ionized ammonia. No limit set at this time but permittee must monitor once/quarter. Should the results of the first four quarters of tests reveal levels below EPA's National Water Quality Criteria for ammonia, the monitoring frequency will be decreased to once/year. See Section C (Permit Reopener) below.
7. Both the plant effluent (Outfall Number 001) and the intake water supply shall be sampled. The incremental increase is the difference between the two sample analyses.

Salinity (TDS) is determined by the "calculation method" (sum of constituents) as described in the latest edition of "Techniques of Water Resources Investigations of the United States Geological Survey-Methods for Collection and Analysis of Water Samples for Dissolved Minerals and Gases."

8. Temperature measurements shall be taken concurrently with measurements for ammonia.

SECTION B. GENERAL DISCHARGE SPECIFICATIONS

All Waters of the Navajo Nation shall be free from pollutants in amounts or combinations that, for any duration:

1. Cause injury to, are toxic to, or otherwise adversely affect human health, public safety, or public welfare.
2. Cause injury to, are toxic to, or otherwise adversely affect

the habitation, growth, or propagation of indigenous aquatic plant and animal communities or any member of these communities; of any desirable non-indigenous member of these communities; of waterfowl accessing the water body; or otherwise adversely affect the physical, chemical, or biological conditions on which these communities and their members depend.

3. Settle to form bottom deposits, including sediments, precipitates and organic materials, that cause injury to, are toxic to, or otherwise adversely affect the habitation, growth, or propagation of indigenous aquatic plant and animal communities or any member of these communities; of any desirable non-indigenous member of these communities; of waterfowl accessing the water body; or otherwise adversely affect the physical, chemical, or biological conditions on which these communities and their members depend.
4. Cause physical, chemical, or biological conditions that promote the habitation, growth or propagation of undesirable, non-indigenous species of plant or animal life in the water body.
5. Cause solids, oil, grease, foam, scum, or any other form of objectionable floating debris on the surface of the water body; may cause a film or iridescent appearance on the surface of the water body; or that may cause a deposit on a shoreline, on a bank, or on aquatic vegetation.
6. Cause objectionable odor in the area of the water body.
7. Cause objectionable taste, odor, color, or turbidity in the water body.
8. Cause objectionable taste in edible plant and animal life, including waterfowl, that reside in, on, or adjacent to the water body.

SECTION C. PERMIT REOPENER

Should any of the monitoring indicate that the discharge causes, has the reasonable potential to cause, or contributes to excursions above water quality criteria, the permit may be reopened for the imposition of water quality based limits and/or whole effluent toxicity limits. Also, this permit may be modified, in accordance with the requirements set forth at 40 CFR Parts 122.44 and 124.14, to include appropriate conditions or limits to address demonstrated effluent toxicity based on newly available information, or to implement any

EPA-approved new Tribal water quality standards.

SECTION D. BIOSOLIDS REQUIREMENTS

1. The permittee shall submit a report 60 days prior to disposal of biosolids. The report shall include:
 - a. A map showing biosolids handling facilities (e.g. digesters, lagoons, drying beds, incinerators, location of land application and surface disposal sites).
 - b. The quantity of biosolids produced in dry metric tons.
 - c. The treatment applied to biosolids including process parameters. For example, if the biosolids is digested, report the average temperature and retention time of the digester. If drying beds are used, report depth of application and drying time. If composting is used, report the temperature achieved and duration. Also report dewatering methods and percent biosolids of final reports.
 - d. Disposal methods (e.g., 50% to landfill, 40% land applied, 10% sold as commercial product.) Report the names and locations of all facilities receiving waste.
 - e. If biosolids is to be land-applied, analyses shall be conducted and submitted for Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Molybdenum, Zinc, and Selenium, and for organic-N, ammonium-N, and nitrate-N. The analyses shall be performed using the methods in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846) and test results shall be expressed in milligram (mg) pollutant per kilogram (kg) biosolids on a 100% dry weight basis.
 - f. If biosolids is placed in a surface disposal site, analyses shall be submitted for Arsenic, Chromium, and Nickel. A groundwater monitoring plan shall be submitted or a certification from a groundwater scientist that there is no potential for groundwater contamination.
2. The permittee shall comply with all standards for sewer biosolids use and disposal established under Section 405(d) of the Clean Water Act, including for existing standards under 40 CFR Parts 257, 258 and 503.
3. Reports for biosolids monitoring shall be submitted to:

Regional Biosolids Coordinator
US EPA (WTR-7)
75 Hawthorne Street
San Francisco, CA 94105-3901

SECTION E. MONITORING AND REPORTING

1. For effluent analyses, the permittee shall utilize an EPA-approved analytical method with a Method Detection Limit (MDL) that is lower than the effluent limitations (or lower than applicable water quality criteria if monitoring is required but no effluent limitations have been established.) MDL is the minimum concentration of an analyte that can be detected with 99% confidence that the analyte concentration is greater than zero, as defined by the specific laboratory method listed in 40 CFR Part 136. The procedure for determination of a laboratory MDL is in 40 CFR Part 136, Appendix B.
2. If all published MDLs are higher than the effluent limitations (or applicable criteria concentrations), the permittee shall utilize the EPA-approved analytical method with the lowest published MDL.
3. Monitoring results obtained during the previous three(3) months shall be summarized for each month and submitted on forms to be supplied by the EPA Regional Administrator, to the extent that the information reported may be entered on the forms. The results of all monitoring required by this permit shall be submitted in such a format as to allow direct comparison with the limitations and requirements of the permit. Unless otherwise specified, discharge flow shall be reported in terms of the average flow over that 30 day period. These reports are due January 28, April 28, July 28, and October 28 of each year. Duplicate signed copies of these, and all other reports required herein, shall be submitted to the Regional Administrator and the Navajo Nation EPA at the following addresses:

Regional Administrator
Environmental Protection Agency
Region IX, Attn: WTR-7
75 Hawthorne Street

Navajo Nation EPA
NPDES Program
P.O. Box 339
Window Rock, AZ

86515

San Francisco, CA 94105

SECTION F. INSPECTION AND ENTRY

The permittee shall allow representatives of the Navajo Nation EPA to accompany the Regional Administrator, or an authorized

representative or in lieu of the Regional Administrator, on inspections performed under authority of Section 10 Inspection and Entry of the EPA, Region 9, "Standard Federal Permit Conditions."

SECTION G. DEFINITIONS

The following definitions shall apply unless otherwise specified in this permit:

1. "Discrete sample" means any individual sample collected in less than 15 minutes.
2. "Daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar for purposes of sampling. For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the sampling day. "Daily discharge" determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the "daily discharge" determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during that sampling day.
3. "Daily maximum" discharge limitation means the highest allowable "daily discharge" during the calendar month.
4. "Daily average" discharge limitation means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.
5. A "composite sample" means, for flow rate measurements, the arithmetic mean of no fewer than 4 individual measurements taken at equal intervals for one hour or for the duration of discharge, whichever is shorter. A composite sample means, for other than flow rate measurement, a combination of 4 hour(s) or for the duration of the discharge, whichever is shorter. The volume of each individual portion shall be directly proportional to the discharge flow rate at the time of sampling. The sampling period shall coincide with the period of maximum discharge flow.

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